4-17-2009

Trashures

Clarissa Pimentel Brandao

TRASHURES

by

CLARISSA P. BRANDAO

Under the Direction of Stan Anderson

ABSTRACT

Trashures celebrates my debut in the sustainable world and is my public statement of change. It is essentially provocative, informative and educational and serves three major fronts. First, *Trashures* aims to raise awareness among visual artists. Second, it seeks to introduce and explore the use of agri-pulp papers in Graphic Design, as a viable commercial solution. Third, it culminates in an invitation to visual artists to search for sustainable solutions. *Trashures* is about transformations. It highlights the transformation of passive materials into active ones, or the transformation of waste into either papers or as subject matter, as a sustainable way to think over waste and consider it as a potential and genuine resource in Graphic Design.

INDEX WORDS: Agri-pulp, Alternative fibers, Recycled paper, Sustainability of paper, Waste, Sustainable graphic design

TRASHURES

by

CLARISSA P. BRANDAO

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Fine Arts

in the College of Arts and Sciences

Georgia State University

2009

TRASHURES

by

CLARISSA P. BRANDAO

Committee Chair: Stan Anderson

Committee: Constance Thalken
Joseph Peragine

Electronic Version Approved:

Office of Graduate Studies
College of Arts and Sciences
Georgia State University
May 2009

To my family who supported me all the way here.

ACKNOWLEDGEMENTS

The three years I have spent as a graduate student at the Ernest G. Welch School of Art and Design have been a milestone in my life and as I approach the end, my heart overflows with gratitude for my family, friends and professors.

I am grateful to the School's staff for their hard work, and to all my professors, who during this time inspired, encouraged and challenged me. I would also like to express my appreciation to the members of my Thesis Committee, Stan Anderson, Constance Thalken and Joseph Peragine.

I will be eternally thankful to my loving parents, who supported me through prayer and filled me with encouragement, hope and strength. Thank you for walking by my side, for believing in my project and for supplying me with papers and products from Brazil. Without your help I would have never been able to develop *Trashures* the way I did. You are my treasure. Likewise, I would like to thank my sister and my brother-in-law for helping this dream come true.

Thank you all.

TABLE OF CONTENTS

LIST OF FIGURES

I. INTRODUCTION: ABOUT *TRASHURES*

My fascination for paper and my urge to become a green graphic designer led me to my thesis on the sustainability of paper. This subject of sustainability within the context of print Graphic Design added wider moral, ethical, social and environmental dimensions to the discussion[1]. My initial research confirmed that more manufacturers are using recycled and certified papers in their products worldwide. I found out that my home country, Brazil, stages many sustainable initiatives on the making of recycled and certified paper as well, but some of these initiatives are dedicated to the making of agri-pulp papers, or paper made from agricultural residues. The discovery aroused my interest immediately, not only for the beauty of these papers, but for the sustainable facet of using outputs as inputs, which is a common practice in Brazil.

While researching agri-pulp papers and other recycling initiatives, I was intrigued that what was trash for some people became "treasures" in the hands of others. The word *Trashures* accurately represents the transcendent aspect of trash becoming visual "treasures", for *Trashures* exploits papers made from waste and my personal paper waste as raw materials. For this reason, *Trashures* is a dynamic process in motion and deals with the constant recycling and transformation of materials. Indeed, *Trashures* is about transformations, in that passive materials are transformed into active ones by empowering them as potential and genuine resources in Graphic Design. The act of designing itself, an act of transformation, entails designers taking a blank sheet of paper and transforming it into a design piece. Although not all *Trashures* posters were printed on agri-pulp papers, they went from waste to paper and from blank paper to posters before reaching the viewer.

1 Victor Papaneck, *The green imperative: natural design for the real world* (New York, NY: Thames and Hudson, 1995): 235,237.

However, all of *Trashures*' posters contain information that targets another major transformation: one in the viewer's attitude toward the sustainability of paper.

Aside from using agri-pulp papers as medium in some pieces, *Trashures* also embraces the following design elements:

1. A Sustainable logotype;
2. Three series of posters:
    - 2.1. *Series #1*: Five color posters about the reality of the paper industry worldwide
    - 2.2. *Series#2*: Three color posters about sustainable printing solutions
    - 2.3. *Series #3*: Three color posters on personal reflections about paper waste
3. A PDF booklet;
4. A movie.

Trashures celebrates my debut in the sustainable world and is my public statement of change. It is essentially provocative, informative and educational while serving on three major fronts. First, *Trashures* is a personal protest against the waste of paper in the art world and aims to raise awareness among visual artists. It addresses these issues through three series of posters, a PDF booklet and a short movie. Second, *Trashures* introduces and seeks to explore the use of agri-pulp papers in Graphic Design as a viable commercial solution. It accentuates textures, flexibility and printability of each one of the agri-pulp papers used. Third, *Trashures* in an invitation to visual artists to search for sustainable solutions by showcasing little appreciated habits.

II. CREATIVE INFLUENCES TO *TRASHURES*

Trashures is influenced by the Brazilian way of life and its traditions. Due to our unstable economy, Brazilians seek to extend a product's life and recycle whatever and whenever it is possible. We are what Brian Dougherty calls in his book *Green Graphic Design* a "network of inputs and outputs, product and waste"[2]. Constantly, our outputs become inputs again, while their functionality may be reinvented. Victor Papaneck justifies this common practice of countries in development, like Brazil, by saying "when life is hard, nothing is wasted"[3]. That is why, I believe, Brazilians end up naturally learning to broaden the functionality of materials and finding potential to recycle most anything they hold on to (Figures 1-2).

The idea of introducing agri-pulp papers as a sustainable solution in *Trashures*' posters came from an old Brazilian regional custom, where agricultural residues are used as packaging, specially for food[4]. Some small manufacturers, especially in poor rural areas, use straw or leaves as packaging to substitute for manufactured materials like paper or plastic (Figures 3-8). In fact, a few large Brazilian manufactures also incorporate this practice into their businesses as a cultural asset[5]. Germana[6], a worldwide exporter of an alcoholic beverage made of sugar cane called *cachaça*, has manually wrapped their bottles in dried banana leaves[7] for over five decades (Figure 9). Another influence to *Trashures* was Ypióca[8], the most important Brazilian manufacturer and exporter of

2 Brian Dougherty, *Green Graphic Design*. (New York, NY: Allworth Press, 2008): 42.
3 Victor Papaneck, *The green imperative*. (New York, NY: 1995): 30.
4 Neide Rigo. Come-se.[updated 09 November 2008; cited 17 December 2008] Available from http://come-se.blogspot.com/2007_11_04_archive.html. Rigo is a Brazilian nutricionist.
5 Universidade Federal do Rio Grande [cited 17 December 2008] Available from www.ypioca.com.br and http://www.furg.br/furg/projet/embalagens/quatro/bebidas.html.
6 Cachaça Germana [cited 20 January 2009] Available from www.cachacagermana.com.br
7 You tube [cited 11 January 2009] Available from http://www.youtube.com/watch?v=vtu8TDz8DF0.
8 Ypióca [cited 17 December 2008] Available from www.ypioca.com.

Figure 1. Mana Bernardes, *Necklace made of PET bottles,* 2008.

Figure 2. Mana Bernardes, *Necklace made of used telephone cards,* 2008.

Figure 3. Neide Rigo, *Sugar cane and buriti candies*, 2008. The sugar cane candy is wrapped in dried banana leaf and buriti candy is packed in a buriti wood box.

Figure 4. Edy Luigi, *Dulce de leche wrapped in corn straw*, 2008.

Figure 5. Neide Rigo, *Orange candy in banana leaf and Taiada in purple corn straw*, 2008.

Figure 6. Neide Rigo, *Ready to cook*, 2008. In poor rural areas it is still possible to find a substitute for aluminum foil that works as well as it in the oven: banana leaves.

Figure 7. Neide Rigo, *Corn cake in banana leaves*, 2008.

Figure 8. Neide Rigo, *Pamonha*, 2008. This is a kind of corn flan wrapped in corn straw.

Figure 9. Unknown, *Cachaça Germana*, 2008. These bottles are manually wrapped in banana leaves and sold worldwide.

cachaça. After making their primarily product of sugar cane, Ypióca uses its bagasse to manufacture paper and soil fertilizer. The paper they make resembles kraft paper and is not only lower in price than kraft paper, but also has the same printing qualities (Figure 10) as its competitor. These three examples are sustainable in essence[9], and also use potential trash as treasured packaging and paper. These three examples have inspired and encouraged me to step away from the default, non-sustainable solutions I have been using so far, and think over waste and recycled papers as real options at hand.

Scott Ewen, from Emigré magazine, stated: "graphic designers are responsible for the world's most beautiful trash"[10]. My entire comprehension of what Graphic Design does changed after I read his charge. As a designer I have focused on the effectiveness of my printed work and less on what happened to my printed work after the work was complete. Ewen made me think backwards, starting at the disposal of my work and ending in my creation. The thought of seeing all the "beautiful" work I have produced in my eleven year career piled up before me as trash was disturbing. Though I have always avoided paper waste in my Design projects, for the first time I visualized my work at the end of the chain, as trash in a landfill. The sight was immensely upsetting and influenced my decision to create *Trashures* as a manifesto against paper waste and for the sustainable use of paper.

---

9 Gatti, Therese Hofmann. Biblioteca Digital de Teses e Dissertações [cited 02 January 2009] Available from http://bdtd.bce.unb.br/tedesimplificado/tde_busca/arquivo.php?codArquivo=3777. Page 77. These practices are sustainable first because the residues deriving the final product's production are minimum, second, the raw material will be replanted, third, no other manufactured material is involved and fourth, its packaging is not only made out of potential waste but is also naturally biodegradable.

10 Design can change [cited 02 October 2008] Available from http://www.designcanchange.org/files/dcc_answers_for_designers.pdf . Page 3. Paper accounts for 81 million tons of solid waste annually, which constitutes 40% of North America's total. In the United States alone, designers purchase or specify $9.1 billion in printing and paper annually. When you create that much demand for such resource-intensive products and services you have an opportunity and responsibility to make a difference..

Figure 10. Clarissa Brandao, *Rapadurinha de cana's carton for sugar cane candy*, 2008. The carton is made of sugar cane bagasse.

A third important influence to *Trashures* is the work of Brazilian artist Vik Muniz[11]. For many years I have admired Muniz's work. Muniz uses all kinds of unusual materials like sugar, chocolate syrup, ketchup, jelly, cotton, diamonds, and leaves among others to recreate existing imagery. Muniz claims that he uses unconventional materials to create visual illusions because materials should play their role as bad actors[12]. For him, the spectator must be able to see the presence of the real element "on stage" instead of just the result of its good representational work, accomplishments that mediums such as paint or pencil would easily achieve. One of Muniz's most influential series to *Trashures* is "Pictures of Junk" (Figure 11) of 2006. The work is in large scale and reinterprets mythological figures (Figure 12) by using old household appliances, tires and pieces of furniture found in the junk. Muniz's work increased my awareness of unconventional materials and on the use of waste in my own work. Essentially, his influence on *Trashures* is twofold. On one hand, *Trashures* takes advantage of waste as material to use, while confronting the viewer to rethink their own production of waste.

A more recent inspiration for *Trashures* came from a book written by Brian Dougherty, an American graphic designer. In his book *Green Graphic Design*, Dougherty highlights many issues regarding paper wasting and the use of waste in Design. He anticipates some sustainable solutions and suggests:

> "One of the ways that designers can improve the efficiency of our communications system is by finding productive uses for waste stream. Rather than limiting ourselves to standard materials for designs, we might also look to cast-offs from other industries. These unconventional materials could spur creative solutions - and we might even get them for free."[13]

11 Vik Muniz [cited 02 January 2009] Available from http://www.vikmuniz.net/.
12 Anne-Marie Russel, director. The worst possible illusion. (Documentary, 2003).
13 Brian Dougherty, *Green Graphic Design*. (New York, NY: Allworth Press, 2008): 43.

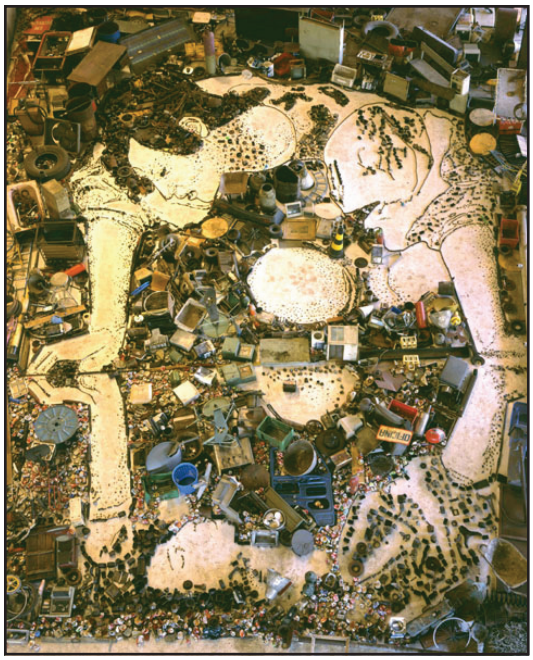

Figure 11. Vik Muniz, *Narcissus*, 2006, from the series “Pictures of Junk”.

Figure 12. Caravaggio, *Narcissus*, 1597.

Some of the examples Dougherty cites in his book (Figure 13) are inspirational. The result is seen in *Trashures' Series#3*, which uses waste as raw material. In order to legitimize the transformation from waste to graphic element in an artistic way, *Series #3* is deeply influenced by the work of Saul Bass. The edgy looking shapes cut from newspapers resemble the shapes found in Bass' movie posters (Figure 14), which also look raw and unfinished.

III. ENVIRONMENTAL CONTEXT

As a consequence of centuries of irresponsible deforestation, pollution of the air and contamination of soil and water, our planet is giving signs of exhaustion as natural resources run out. Since the mid 1980s humans are using more resources than the Earth can generate[14]. Hence, we have less to produce with and a lot to get rid of. However, since the 1990s, an increasing number of industries have been embracing sustainability as part of their business[15]. The concept of sustainability has impacted the behavioral dynamics of markets, of societies and of consumption worldwide. Based on these changes, Jackie DeLise, vice president of Zunda Design Group takes a step forward and anticipates:

> "Sustainability should be front and center and part of every business decision a company makes. Sustainability is the next industrial revolution." [16]

In many countries, like the USA, the paper industry has been investing in sustainable forestry, renewable sources of energy and making papers with less chemicals, for example. Moreover, the use of post and pre-consumer waste is also playing an important role in favor of sustainability.

14 Brian Dougherty, *Green Graphic Design*. (New York, NY: Allworth Press, 2008): 32.
15 Michael Tambini, *The look of the century* (New York, NY: DK Publishing., 1996): 250.
16 Deborah A.Teschke. International Housewares Association. [cited 24 January 2009] Available from http://www.housewares.org/kc/trend/5.aspx.

Figure 13. Studio Eg, *Brochure printed on obsolete blueprints,* 2007. The blueprints were salvaged from local planning departments and architectural firms and transformed into media to print the company's brochures.

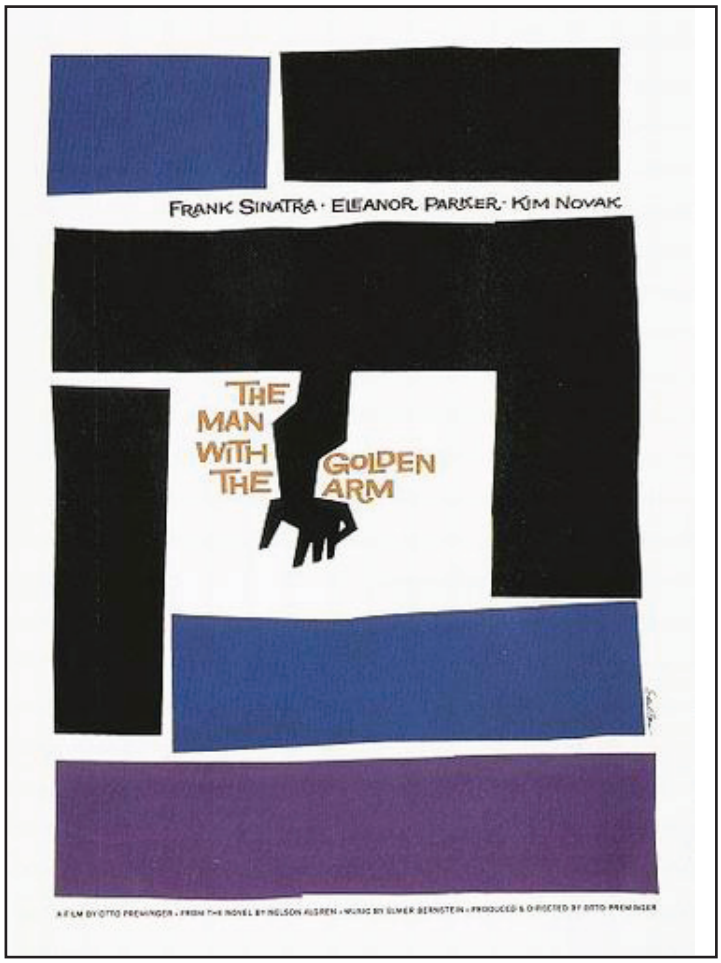

Figure 14. Saul Bass, *The man with the golden arm*, 1955.

All these practices are increasing in popularity, and the scenario is slowly beginning to change. However, the adjustments required to fit in this new reality are many, from the knowledge of new physical materials, such as eco-friendly papers and inks[17], to a mental shift toward a sustainable mindset. The Brundtland Report of 1987 discusses ways to a global environment-friendly economic progress and defines sustainability as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"[18]. As simple as it can be, this definition legitimized my understanding that life on Earth is compromised because of people's choices for convenient solutions over sustainable ones. For example, if people wanted wood, they would simply cut the existing trees. If people needed to get rid of chemicals, they would dump them in rivers or in holes in the ground and so on – all this with very little consideration for long term harms. Because theses options were rather convenient, other options to choose from were not considered. Victor Papaneck condemns these shortcuts in the name of progress in his book *The Green Imperative* by saying "convenience is the enemy of excellence"[19]. Men have not been excellent, but instead, exploiters of natural resources. As a result of so many years of living in convenience, numbers show that the pulp and paper industry is responsible for 40% of all deforestation worldwide and that the paper industry is the number one industrial user of water[20].

---

17 Kristin Schwarz. The designer's life [updated 28 February 2008; cited 29 October 2008] Available from http://www.thedesignerslife.com/insidefreelancedesign/2008/71/. These inks are made from biodegradable organic components, such as soy, linseed, or cottonseed oil.
18 Wikepedia and Encyclopedia of atmospheric environment [cited 03 January 2009] Available from http://en.wikipedia.org/wiki/Brundtland_Commission and http://www.ace.mmu.ac.uk/eae/Sustainability/Older/Brundtland_Report.html. The Brundtland Comission, formally the World Commission on Environment and Development (WCED), was convened by the United Nations in 1983. The Report of the Brundtland Commission, Our Common Future, was published by Oxford University Press in 1987 envisioning changes for the year 2000 and beyond and alerted the world to the urgency of making progress toward economic development that could be sustained without depleting natural resources or harming the environment.
19 Victor Papaneck, *The green imperative* (New York, NY: Thames and Hudson, 1995): 75.
20 Brian Dougherty. *Green Graphic Design*. (New York, NY: Allworth Press, 2008): 130, 135.

On the other hand, there are convenient situations that are allies to excellence. As in the case of banana and sugar cane agri-pulp papers that generate extra incomes to their agriculturists. Both fibers are considered agricultural residue fibers because the papers made from these fibers derive from the residues of sugar cane bagasse and banana trunks. This means that these crops were not destined to be used by the paper industry, but by other industries[21], such as food and beverage. Even if these plantations relied on hazardous chemicals, the paper industry would not be the one to blame. Agri-pulp papers are benefiting the environment because if the banana and sugar cane residues had not become paper, they would potentially be incinerated[22], releasing toxic gases into the air. Another major benefit is that one ton of these fibers saves an estimated 17 trees[23]. According to Dougherty, papers made from these fibers have an ideal level of sustainability. He highlights that they are very promising fibers, not only because they come from sustainable harvests of renewable resources, but also because they require very moderate energy to be made, and are fully recyclable[24] (Figure 15).

IV. DESIGNING *TRASHURES*

Trashures is informative, educational and provocative. Each of these points is covered in the three series of posters, along with the PDF booklet and the movie that work as co-stars to the posters. Although *Trashures'* pieces are one-of-a-kind and have been printed on ink jets, laser printers and copy machines, the entire design process, evolved primarily around sustainable parameters, as if the pieces were meant to be mass produced. The production guideline determined how each one of

21 Brian Dougherty. *Green Graphic Design*. (New York, NY: Allworth Press, 2008): 131.
22 Therese Hofmann Gatti. Biblioteca Digital de Teses e Dissertações [cited 02 January 2009] Available from http://bdtd.bce.unb.br/tedesimplificado/tde_busca/arquivo.php?codArquivo=3777.
23 EcoPaper [cited 25 January 2009] Available from http://www.ecopaper.com/about.
24 Brian Dougherty, *Green Graphic Design*. (New York, NY: Allworth Press, 2008): 186.

	SOURCE	ENERGY IMPACTS	DESTINY
PREFERRED	Made from sustainably harvested, renewable resource;no known toxicity	Made with renewable energy; very moderate embodied energy	Fully recyclable; fully compostable; reusable
CAUTION	Made from conventional renewable resource	Made with nonrenewable energy; low embodied energy	Compatible with incineration
AVOID	Made from nonrenewable resource; known toxic impacts	Made with nonrenewable energy; high embodied energy	Requires conventional or hazardous waste landfill

PAPER

PAPER	SOURCE	ENERGY	DESTINY
Post-consumer recycled fiber			
Pre-consumer recycled fiber			
FSC certified virgin fiber			
Conventional virgin fiber			
Alternative agricultural fiber			
Agricultural waste fiber			
Plastic laminated paper			
TCF/PCF bleaching			
ECF bleaching			
"Wind-powered" paper			

Figure 15. Brian Dougherty, *Sustainability scorecard*, 2008.

pieces should be designed. In the case of the printed material, sustainability influenced everything from design to paper choice and formats. For example, the white border or margin found in the posters were placed to avoid bleeds. The message of the PDF booklet is simple and readable to encourage the viewer to read the booklet on screen instead of printing it. Paper waste was avoided at all costs by designing the posters' sizes to fit the specific sites (gallery and 4th floor hall) more efficiently. The variety in formats and media reflects the availability of options regarding materials and processes, as opposed to presenting the same old solutions all the time. Moreover, this diversity addresses the fact that being sustainable demands flexibility and creativity from the artist.

Trashures provokes the viewer not only visually but also intellectually and socially. The content provides insights to both global and personal orders and encourages the viewer to take action in the sustainable world.

Sustainable Logo

In order to identify sustainable solutions, *Trashures* introduces a Sustainable logo (Figure 16) that parallels the evolution of the recycling logo. It is a green "S" with arrows as its ends, pointing back to the letter, making the logo resemble the infinity symbol, and connoting the cyclical aspect of sustainability – where the ends point back to a new start as well. The logo is designed for all sorts of products and services created in accordance with sustainable principles, such as environmental preservation, diversity and choice[25].

25 Sustainable principles. [cited 18 January 2009] Available from http://www.sustainableprinciples.com/About_Us.html.

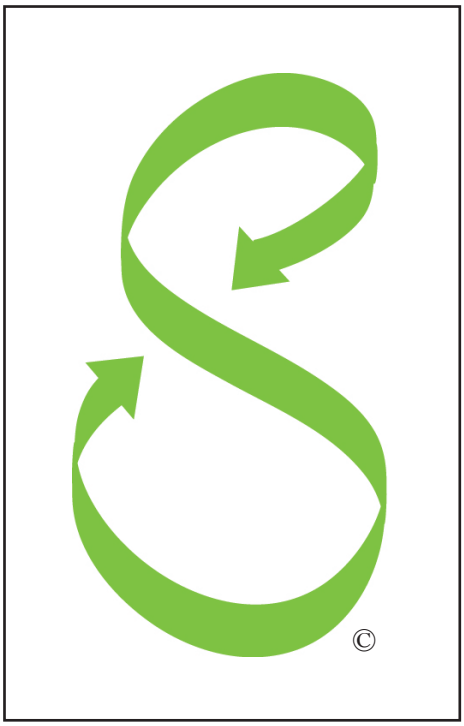

Figure 16. Clarissa Brandao,
Sustainable logo, 2008.

Posters

Trashures is comprised of three series of posters that address the sustainability of paper. The content, type of paper printed and approach change in each one of the series. While in the first two series the graphics are streamlined and evoke a sense of technology, the third series has a handmade and raw appeal. This differentiation is intentional and is a counterbalance between content and visuals. In *Series #1* and *#2*, the main objective is to raise awareness to the issues covered, so factual content is more important than in *Series #3.* For this reason, in the first two series information is top priority and graphics are secondary in importance. On the other hand, in *Series #3*, the art work itself and media used become the center of interest of the posters and information is secondary in importance.

Series #1

Trashures' first series of posters embraces five relevant sustainable solutions (Figures 17-21) in the paper industry. These solutions are:

1. Papers made of post-consumer waste;
2. Papers made with banana – agricultural residues;
3. Papers made with sugar cane – agricultural residues;
4. Papers made with renewable energy;
5. Papers made with certified fibers.

The posters stray from the idea that sustainable prints can only use very few colors and low quality recycled paper. Instead, they evoke a lively feel due to their color palette. The choice of vivid colors

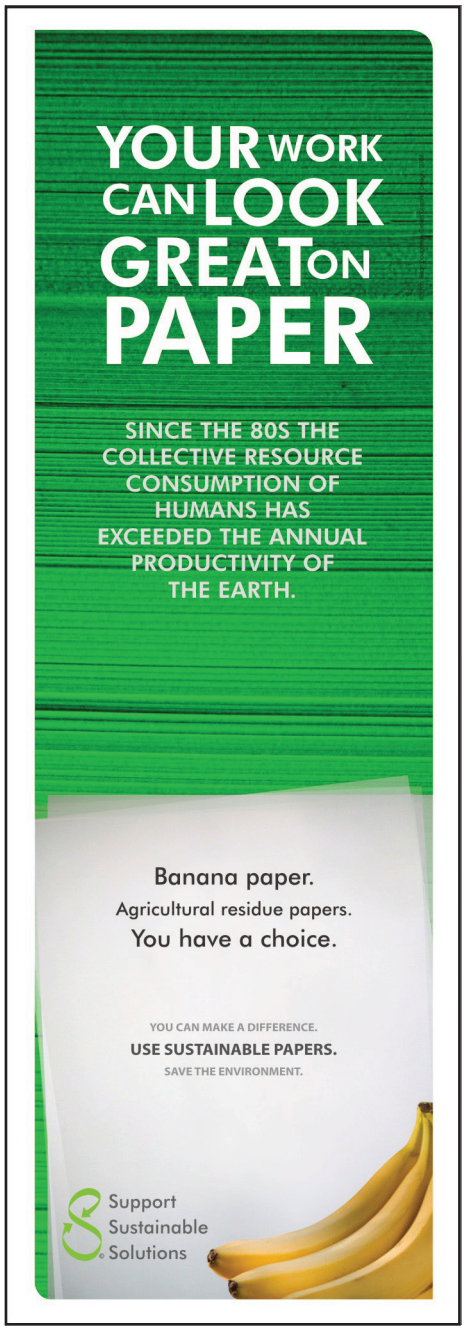

Figure 17. Clarissa Brandao, *Series #1: Banana papers*, 2009.

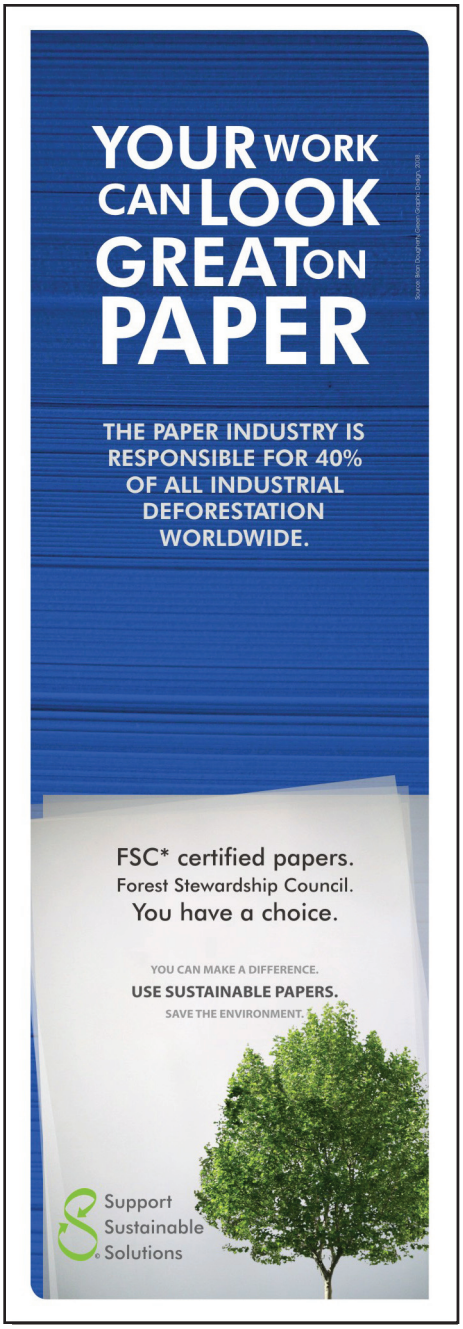

Figure 18. Clarissa Brandao, *Series #1: Certified papers*, 2009.

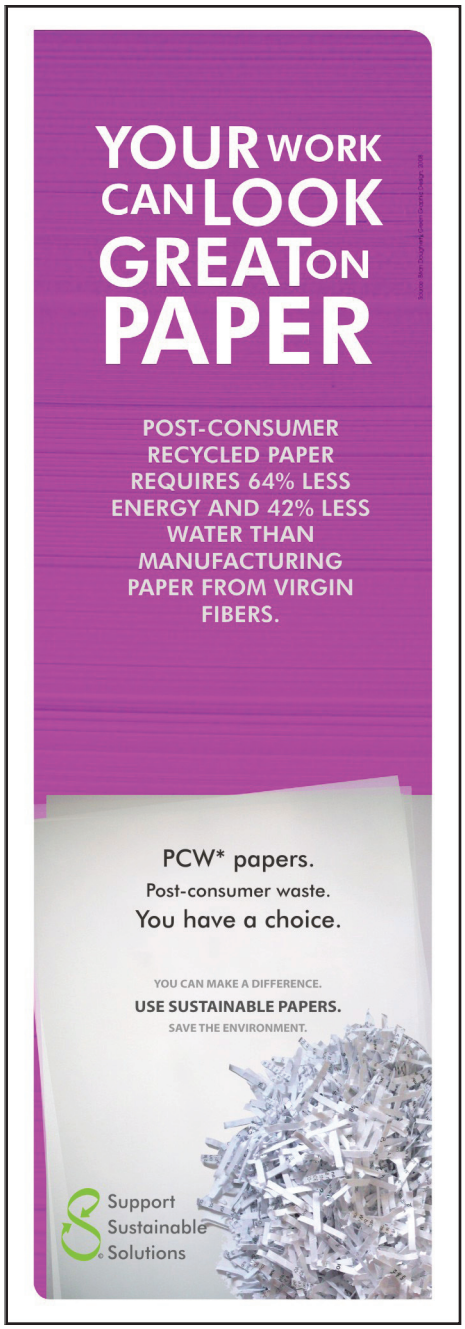

Figure 19. Clarissa Brandao, *Series #1: Recycled papers*, 2009.

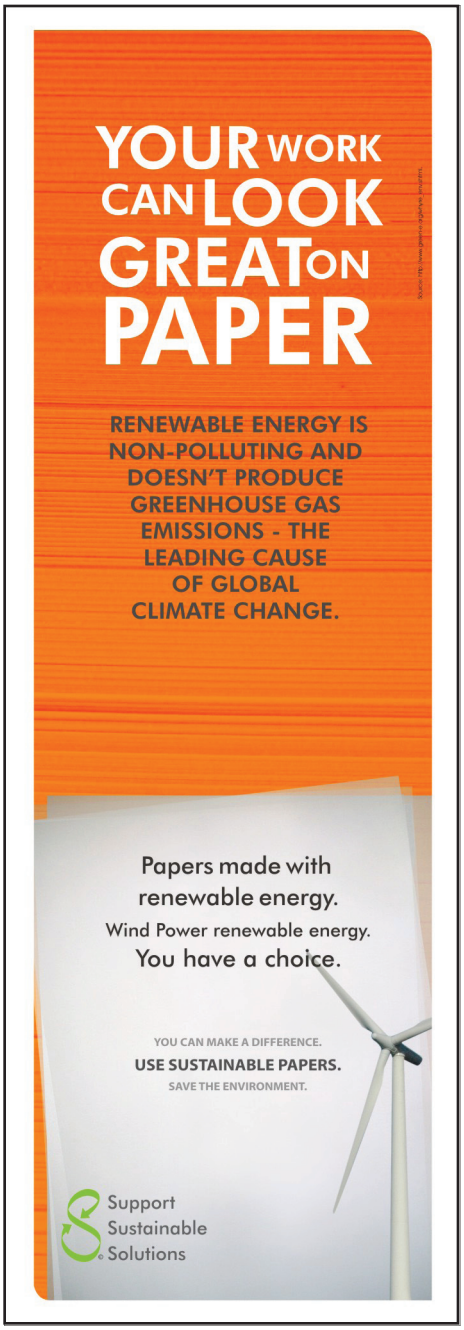

Figure 20. Clarissa Brandao, *Series #1: Papers made with renewable energy*, 2009.

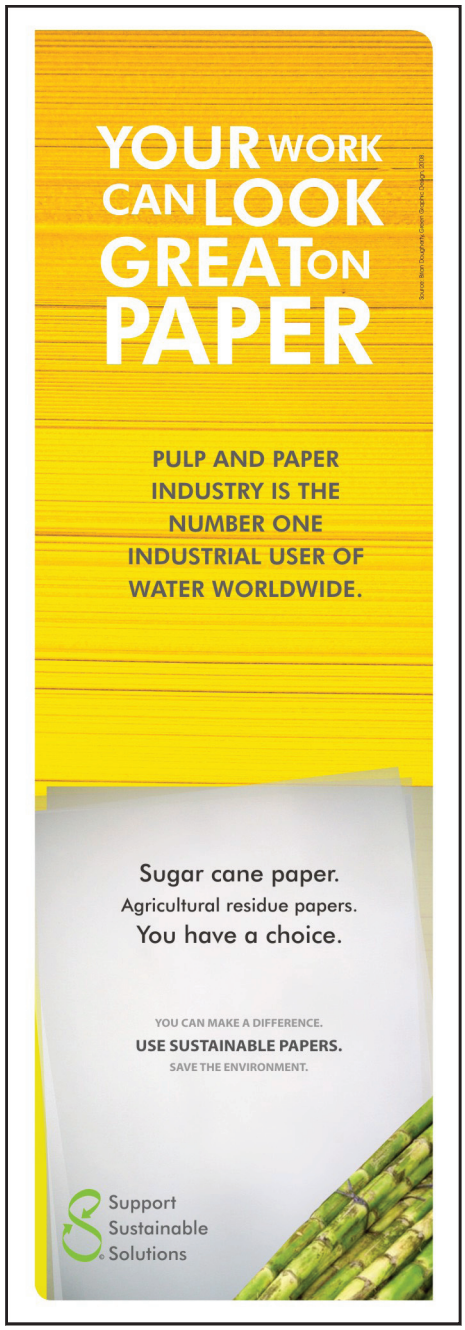

Figure 21. Clarissa Brandao, *Series #1: Sugar cane papers*, 2009.

refers to the environmental preservation promoted by each one of the solutions and celebrates a sustainable lifestyle on the planet. Beside the stacking of translucent paper at the bottom, the background image used in *Series #1* is also used in *Series #2*. The image is a stack of paper seen from the side, which adds texture to the posters and helps to build verticality through the stacking of horizontal lines. While *Series #1* is informative, it is also a wakening call and an invitation to take action. The title, which is the same in *Series #1 and #2* ,"Your work can look great on paper" is justified by the phrases "You can make a difference. Use sustainable papers. Save the environment.". These phrases are strategically placed below the factual information to promote "theory" (message) into practice (act of using sustainable papers).

Series #2

Trashures' Series #2 addresses important issues regarding printing in its three posters (Figures 22-24). Below is the list of issues covered:

1. Using digital printing instead of offset;
2. Using white borders instead of bleeds;
3. Using inks that do not contain hazardous metals.

Although the solutions are simple, they can broaden the path toward sustainability in printing. *Series #2* was designed to communicate these issues to the Graphic Design students of the Welch School of Art and Design, who will be responsible for an enormous amount of prints throughout their academic and professional lives. However, each one of the three topics covered in *Series #2* can be easily understood and put into practice by anyone dealing with these concerns in printing.

Figure 22. Clarissa Brandao, *Series #2: Digital printing*, 2009.

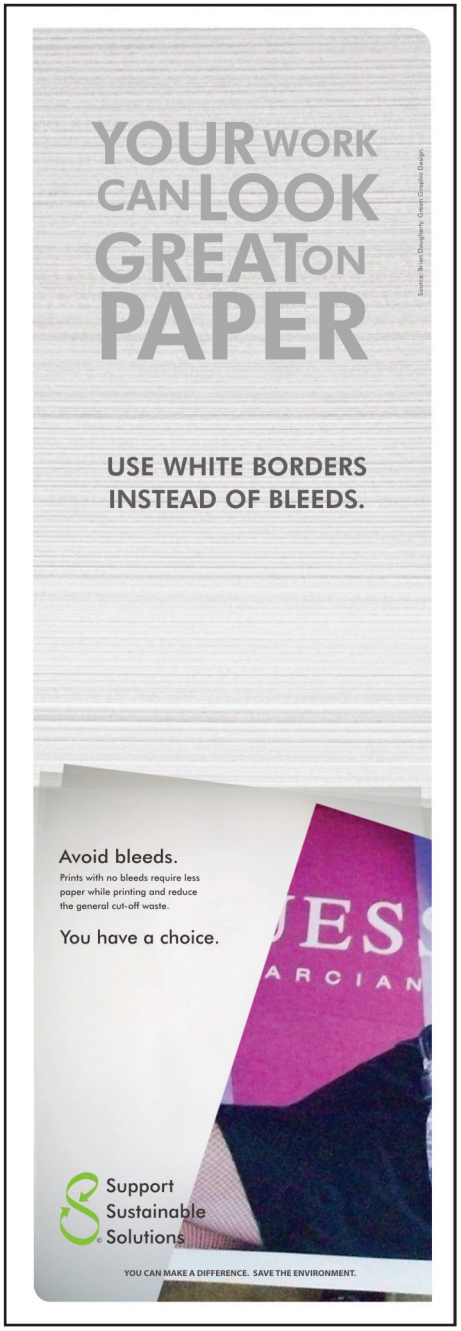

Figure 23. Clarissa Brandao, *Series #2: Bleeds*, 2009.

Figure 24. Clarissa Brandao, *Series #2: Hazardous inks*, 2009.

Series #3

In *Trashures' Series #3,* the apogee of the research is a compilation of theoretical facts and sustainable practices. It is the tangible result of outputs becoming inputs or waste transformed into raw material in Graphic Design. The fibers used to make the papers on which the posters are printed come mostly from crops residues and the imagery are cut-outs from old magazines and used sketchbooks. *Series #3* is about the transformation of materials, creativity, but mainly, sustainability (Figures 25-27). The series incorporates Muniz's idea behind *Pictures of Junk* where the artist used using junk as raw material. In *Series #3* materials are not "transparent", as Muniz would refer to them. By that, he means that the use of unconventional materials and techniques make the viewer forget about the subject matter for a while and think about the act of doing the piece of art itself. As a result, the viewer is exposed to a visual experiment while acknowledging new papers and an unexpected creative process.

Series #3 speaks personally to the viewer and suggests simple solutions for them to reduce paper waste. The solutions are:

1. Using both sides of sketchbook pages;
2. Using the back of printouts as scrap paper;
3. Using recycling bins to dispose used paper.

The posters are printed on a diversity of agri-pulp and agricultural alternative fibers' papers[26]. This last kind of fibers use plants instead of trees to make paper and other products. Though

26 The agri-pulp papers used were made by Moinho Brasil, Ecopapers and Agave Papéis. Moinho Brasil. [cited 02 January 2009] Available from http://www.moinhobrasil.com.br, Agave Papéis Artesanails [cited 02 January 2009] Available from http://www.agavepapeis.com.br, EcoPaper [cited 25 January 2009] Available from http://www.ecopaper.com.

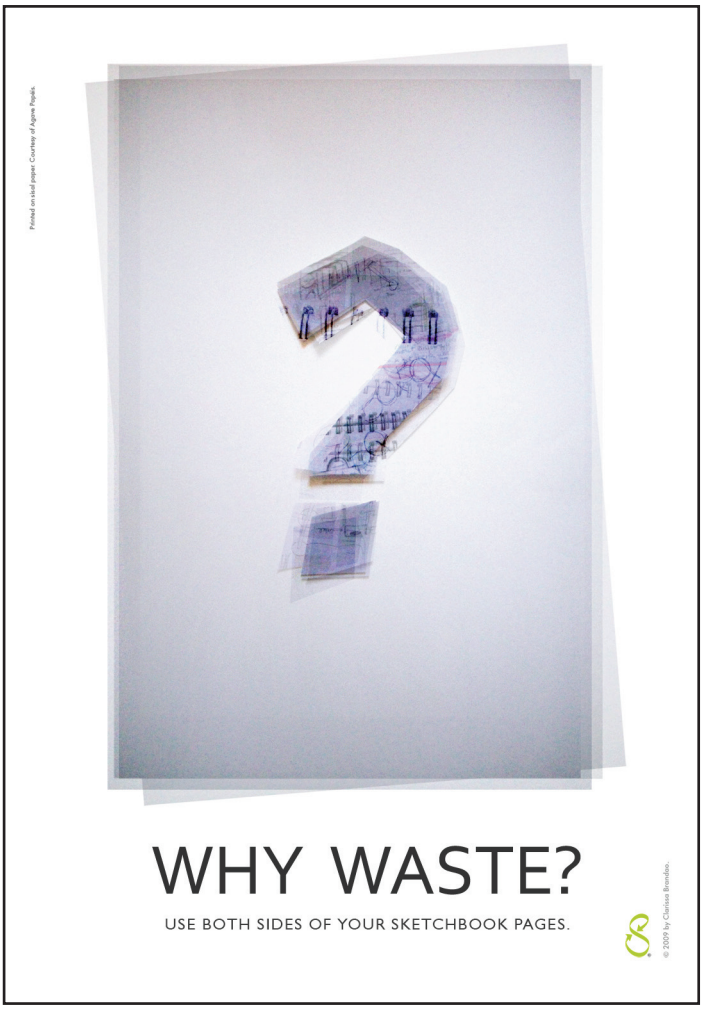

Figure 25. Clarissa Brandao, *Series #3: Why waste*, 2009.

Figure 26. Clarissa Brandao, *Series #3: Don't waste*, 2009.

Figure 27. Clarissa Brandao, *Series #3: Stop waste*, 2009.

considered an alternative agricultural fiber and not an agricultural residue fiber, these plants' paper manufacturing is sustainable and, therefore, still a better option than non-sustainable papers. Sisal paper, which is an alternative agricultural fiber, is used to print *Trashures' Series #3* main posters (Figure 28). It can be printed in regular ink jets or laser printers normally without harming the machine.

As an exercise to test these residual and alternative fibers papers' printability, the "STOP WASTE" poster is printed in ten different kinds of paper (Figure 29). These papers vary in color and texture, but prove to be a great media for printing. A second successful exercise is using sugar cane paper to print all *Series #3'* posters in a smaller format and spreading the posters throughout the School of Art & Design. This aims to bring *Trashures'* sustainable message closer to students, faculty and staff and restates these papers' commercial and printable potential. Like sisal paper, sugar cane paper has an organic look and unique texture, and evokes a primitive aura. This feel provides a transcendent experience for the viewer. Instead of seeing banana or sugar cane primarily as food, the viewer experiences them in an entirely new realm, adding a precious value to the papers.

***Trashures* Announcements**

The postcard announcements for *Trashures* mimics one of the posters in *Series #3* (Figure 30-31). However, texture is added to the postcard by overlapping a scanned image of an agri-pulp paper on top of the composition. After conceiving the postcard layout, two crucial points arose: where and on what paper to print them? The postcards are the only piece in *Trashures* that demand commercial printing, due to their two-sided layout and amount to be produced. Searching the internet, I found

Figure 28. Clarissa Brandao, *Trashures, the gallery show*, *Series # 3*, 2009. The posters displayed at the exhibition were printed on sisal paper.

Figure 29. Clarissa Brandao, *Trashures, the gallery show*, *Series # 3 - Panel*, 2009.

Figure 30. Clarissa Brandao, *Trashures, Postcard front*, 2009.

Figure 31. Clarissa Brandao, *Postcard back*, 2009.

some eco-friendly printers who provide their services online. However, the postcards would have to be mailed after printing. Hence, the final decision on where and on what paper to print the postcards was determined by one single sustainable principle: proximity to the vendor. As I researched local printers, I found *Imagers*, which is on my way to work and provides not only the service, but also the right paper. Therefore, the postcards will be printed on SFI (Sustainable Forestry Initiatives) certified papers and will be ready for pick up 24 hours after I electronically submit the digital file. This information may seem irrelevant, but there are many sustainable issues covered in this simple solution. First, by using a local printer near my work, air and ground transportation are cut, reducing the CO2. Second, the number needed is relatively small and so I can use digital printing. By doing this, I avoid the use of many chemicals associated with film processing and plate making (suggestion made in *Series #2*). Third, digital printing does not use inks with high levels of metal (suggestion also made in *Series #2*). Fourth, by sending my file electronically, I prevent waste by not using any physical media, such as a CD, to carry my data.

Along with the printed version, there is also an electronic invitation that is going to be e-mailed to friends and family. By doing this, I will be able to reduce the amount of printed invitations and therefore, save paper, water and energy.

PDF Booklet and Movie

The PDF booklet intends to be distributed to the students, faculty and staff of the School of Art & Design. It is not only a compilation of the imagery and content presented during the show but it also brings some practical information to its audience. In order to maintain consistency, the PDF

booklet title is the same given to *Series #1* and *#2* "Your work can look great on paper". However, the background image differs slightly. This image is also created with a stack of paper, but due to the sheets' vertical alignment, they create the letter "S" shape on the left (Figure 32). The first pages of the booklet are broken down to a four-spread sequence containing a Scott Ewen quote, which is one of the major influences for *Trashures*. As mentioned before, he said: "Graphic designers are responsible for the world's most beautiful trash." This introductory quote is a wakening call to graphic designers and aims to shock, disturb and to make them think about the truth behind it. As a visual aid, the background image is a collage of various Graphic Design pieces with gradually changing amounts of crushed papers on top of them. The idea is to show the consumers' ephemeral interest in Graphic Design pieces, because what is visually treasured in one moment becomes trash in the following second. As the readers move on to the next page, the *Trashures'* logo is presented to them and is accompanied by the sentence "A convocation to design with sustainability in mind". This subtitle explains *Trashures'* purpose, while directs the readers' attention to the main focus.

Each one of the eleven posters is adapted to fit in a spread and each one of the three series is displayed together as a group. The end of each of series is evidenced by a spread containing images and wording related to sustainability. At the end of the 54 page PDF booklet, the reader is invited to learn, engage and to take action into the sustainable world. For this reason, *Trashures* provides lists of useful links that the user can access in order to start achieving these three accomplishments.

As for the movie shown in *Trashures,* it is an animated version of the booklet. Although it contains less pages to better communicate *Trashures'* message to its audience during the MFA show, the

Figure 32. Clarissa Brandao, *PDF booklet cover*, 2009.

main message remains the same. The movie reinforces the content found in all three series of posters and aims to reach out for those who either do not take the time to enter the gallery or that do not read the poster's contents. For this reason, the movie is strategically projected against the small gallery's back wall, which is parallel to the School of Art & Design main entrance and opposite from the first floor's elevators (Figure 33).

V. CONCLUSIONS

Just as in any sustainable initiative, *Trashures*' success relies on the fact that the beginning and the end are equally important. Although the philosophy of beginning with the end in mind is not new in my creative process, having it guided by sustainable parameters is. With *Trashures*, I realize that my passion for paper grows, making me value it as much as a goldsmith values gold. *Trashures* puts me in a position of turning my back on non-sustainable ways and makes me want to take action into the sustainable world continuously. Therefore, I have established three personal resolutions which I will pursue daily:

1. I will design with sustainability in mind, even if I have to abandon my easiest default solutions.
2. I will only use papers that were manufactured in a sustainable manner.
3. I am a agent of change, so I commit to do my job well, by influencing others.

Trashures initiates a new chapter of my career and takes me from a position of unfamiliarity with some sustainable issues to one where knowledge empowers me to change myself and others. The enlightenment brought by *Trashures* will be unceasingly an extension of who I am as a visual artist. However, as far as of my perception of the big picture between print graphic designers and the paper industry, I daydream

Figure 33. Clarissa Brandao, *Trashures, the gallery show*, 2009.

with two possibilities. The first possibility is based on expectations for the future and demands an engagement from designers to face the challenge David W. Orr anticipated in the beginning of this century:

> "The largest design challenge is to transform a wasteful society into one that meets human needs with elegant simplicity. Designing ecologically requires a revolution in our thinking that changes the kinds of questions we ask from how we can do the same old things more efficiently to deeper questions such as: Do we need it? Is it ethical? What impact does it have on the community? Is it safe to make and use? Is it fair? Can it be repaired or reused? What is the full cost over its expected lifetime? Is there a better way to do it?[27]

The second possibility is based on realizations of the past and it is that, just like Brazil, countries with any kind of agricultural crops would encourage research and invest on the use of residues to make agri-pulp paper and other products. These papers are a great alternative for a sustainable future and could revolutionize not only the paper industry, but the world. It might be, and so I hope, that in these times of global economic and environmental crises that more countries reflect on their waste and achieve a higher level of sustainability[28] and, as a consequence, more networks of inputs and outputs come to life worldwide.

To conclude, in a smaller scale, *Trashures* is a starter for me to find ways contemplate waste and integrate it into my creative process. *Trashures* breaks the idea that print Graphic Design is a bad choice for the environment altogether, but instead, it proves that print Design can be a network of inputs and outputs, where designers can continuously recreate and stimulate their "beautiful trash" to become something else. It also proves that graphic designers have the power to make

27 David W. Orr, *The nature of design* (New York, NY: Oxford University Press, 2002): 27-28.
28 Brian Dougherty. Green Graphic Design. (New York, NY: Allworth Press, 2008): 186.

better paper choices, and therefore, play an important role on the preservation of the environment. As Doughtery teaches "Green Design is a matter of finding and using better physical materials"[29]. As a graphic designer, I accept his statement as true because after designing *Trashures* I grew to believe in the potential of agri-pulp papers as a great substitute for non-eco-friendly papers. Agri-pulp papers are undoubtedly a great physical material, although some of them still need some improvement before reaching mass production. Unlike papers made with post and pre-consumer waste, which are made from existing paper, agri-pulp papers carry a uniqueness because of the materials they are made of. The fact that we can identify their raw materials and, in some cases, relate to them in another level, for example as being part of our food chain, fascinates people. Although recycled papers are as eco-friendly as agri-pulp papers, I like to think of the added value agri-pulp papers bring to a print design work as they have brought to all the graphic pieces of *Trashures*.

29 Brian Dougherty. Green Graphic Design. (New York, NY: Allworth Press, 2008): 10.

BIBLIOGRAPHY

Agave Papéis Artesanais [cited 02 January 2009] Available from http://www.agavepapeis.com.br

Cultura Brasileira. [cited 15 January 2009] Available from http://www.brasilcultura.com.br/destaque.php?menu=106&id=25

Design can change [cited 02 October 2008] Available from http://www.designcanchange.org/files/dcc_answers_for_designers.pdf

EcoPaper [cited 25 January 2009] Available from http://www.ecopaper.com/about

Gatti, Therese Hofmann. Biblioteca Digital de Teses e Dissertações [cited 02 January 2009] Available from http://bdtd.bce.unb.br/tedesimplificado/tde_busca/arquivo.php?codArquivo=3777

Hamlett, Phil. Design can change [cited 01 October 2008] Available from http://www.designcanchange.org/files/dcc_answers_for_designers.pdf

Moinho Brasil. [cited 02 January 2009] Available from http://www.moinhobrasil.com.br.

Neide Rigo. Come-se.[updated 09 November 2008; cited 17 December 2008] Available from http://come-se.blogspot.com/2007_11_04_archive.html

Orr, David W. *The nature of design.* New York, NY: Oxford University Press, 2002

Papaneck, Victor. *The green imperative: natural design for the real world*. New York, NY: Thames and Hudson, 1995

Schwarz, Kristin. The designer's life [updated 28 February 2008; cited 29 October 2008] Available from http://www.thedesignerslife.com/insidefreelancedesign/2008/71/

Tambini, Michael. *The look of the century*. New York, NY: DK Publishing., 1996

Teschke, Deborah A. International Housewares Association. [cited 24 January 2009] Available from http://www.housewares.org/kc/trend/5.aspx

The story of stuff [cited 20 October 2008] Available from http://www.thestoryofstuff.com

Universidade Federal do Rio Grande [cited 17 December 2008] Available from http://www.furg.br/furg/projet/embalagens/quatro/bebidas.html

Ypióca [cited 17 December 2008] Available from http://www.ypioca.com.br

You tube [cited 11 January 2009] Available from http://www.youtube.com watch?v=vtu8TDz8DF0

Wikepedia and Encyclopedia of atmospheric environment [cited 03 January 2009] Available from http://en.wikipedia.org/wiki/Brundtland_Commission and http://www.ace.mmu.ac.uk/eae/Sustainability/Older/Brundtland_Report.html